WHAT IS CLAIMED IS:

1. Temperature sensor incorporating a bi-metal thermocouple means, comprising:

a first metallic means in the shape of an electrically insulated wire means having an uninsulated portion;

a second metallic means in the shape of a jacket means at least partially coaxially enclosing said wire means, said jacket means being in electrical contact with said uninsulated portion of said wire means to thereby form a measuring junction;

an electrically insulated carrier wire means provided with a blank uninsulated portion;

said jacket means and said carrier wire means consisting of the same metallic material, and said jacket means further enclosing said carrier wire means at least in the region of said blank uninsulated portion of said carrier wire means, thereby being in electrical contact with said blank uninsulated portion of said carrier wire means.

2. Temperature sensor according to claim 1 in which said electrically insulated wire means is spirally wound around said carrier wire means and projects over the free front end of said carrier wire means to thereby form the measuring junction.

3. Temperature sensor according to claim 2 in which the diameter of said carrier wire means is a multiple of the diameter of said electrically insulated wire means.

4. Temperature sensor according to claim 1 in which said uninsulated portion of said carrier wire means is located at the free front end of said carrier wire means.

5. Temperature sensor according to claim 1 in which said jacket means is provided, at least in the region of said measuring junction, with a reflective coating means.

6. Temperature sensor according to claim 5 in which said coating means consists of aluminum, of an aluminum alloy or of a precious metal.

7. Temperature sensor according to claim 1 in which said jacket means extends on said carrier wire means over said blank uninsulated portion thereof and further over an adjacent portion thereof.

8. Temperature sensor according to claim 1 in which said uninsulated portion of said first metallic means in the shape of an

electrically insulated wire means is located at the free end thereof.

9. Temperature sensor according to claim 1 in which said jacket means is applied to said first metallic means in the shape of an electrically insulated wire means and at least partially to said carrier wire means by thin film technique.

10. Temperature sensor according to claim 1 in which said first metallic means in the shape of an electrically insulated wire means consists of constantan.

11. Temperature sensor according to claim 1 in which said jacket means consists of copper.

12. Temperature sensor according to claim 1 in which both said carrier wire means and said jacket means consist of copper.